Estimating Avian Consumption John Day Dam & The Dalles Dam 2009 - 2011

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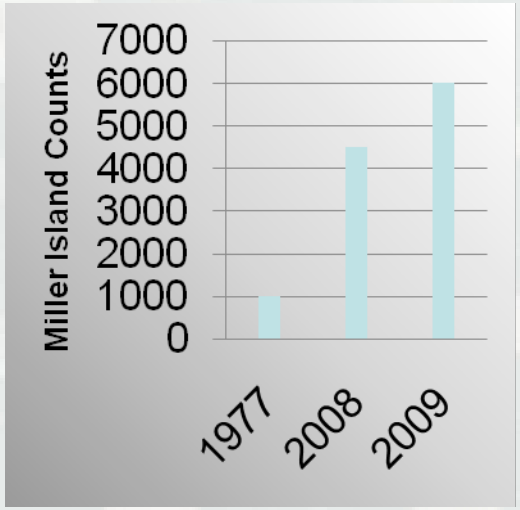
Conclusions 2011

- Gull numbers were highly variable

- Foraging focused on spillway tailrace
  - JD's Temp Spillway Weir outflow
  - JD's boat hazing & avian lines worked
    - Consumption 76% less than 2009
  - TDA spillway tailrace below bridge



- **Recommendations**

  - Sustained boats hazing program
  - Maintain avian deterrent lines
  - Prevent nesting near dams

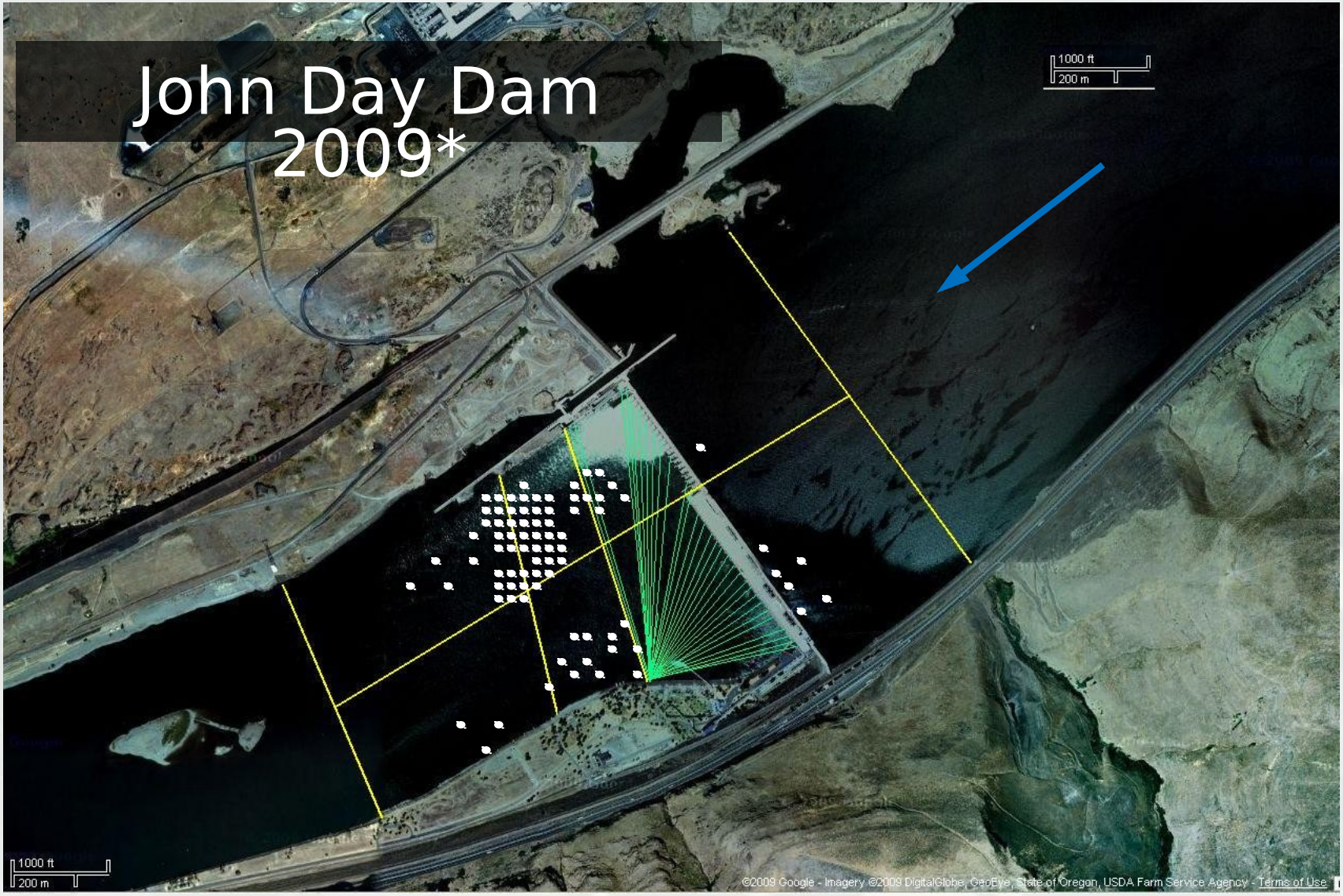
The Problem

- Reaching BiOp required smolt survival
  - 96% Spring
  - 93% Summer
- Avian predation is apparent
  - Need to prioritize avian deterrent spending
  - Need for post deterrent evaluation
- RPA's 47, 48, and 68

Methods: Data collection

- Direct observation of zones
  - Dawn to Dark
  - Count birds by species
  - Count attacks then evaluate attacks (30 min + 30 min)
  - Count birds by species
  - Move to next zone

John Day Dam 2009*


1000 ft
200 m
1000 ft
200 m
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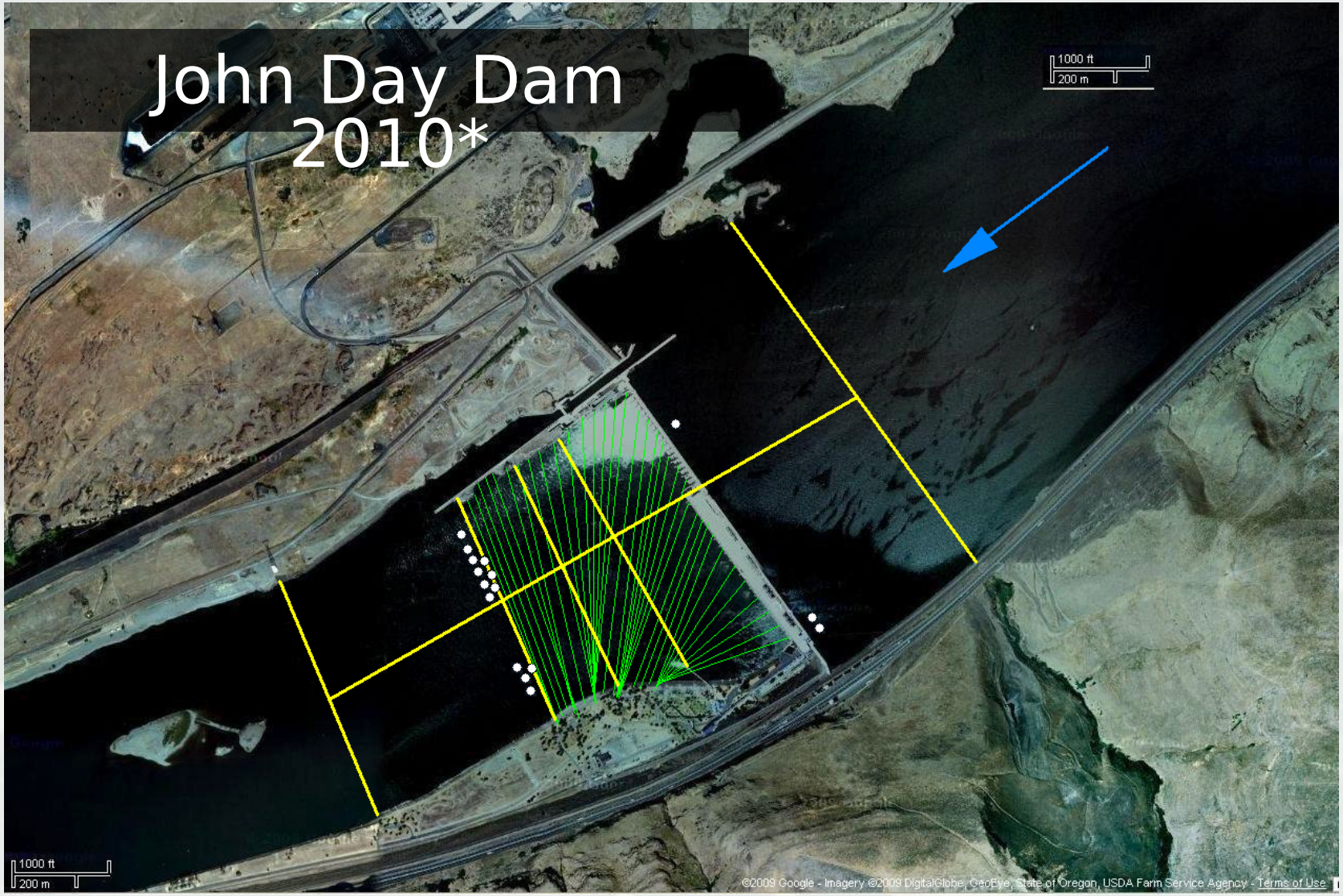
*Daily mean gull count n = 99
One dot = one gull

John Day Dam 2010*


1000 ft
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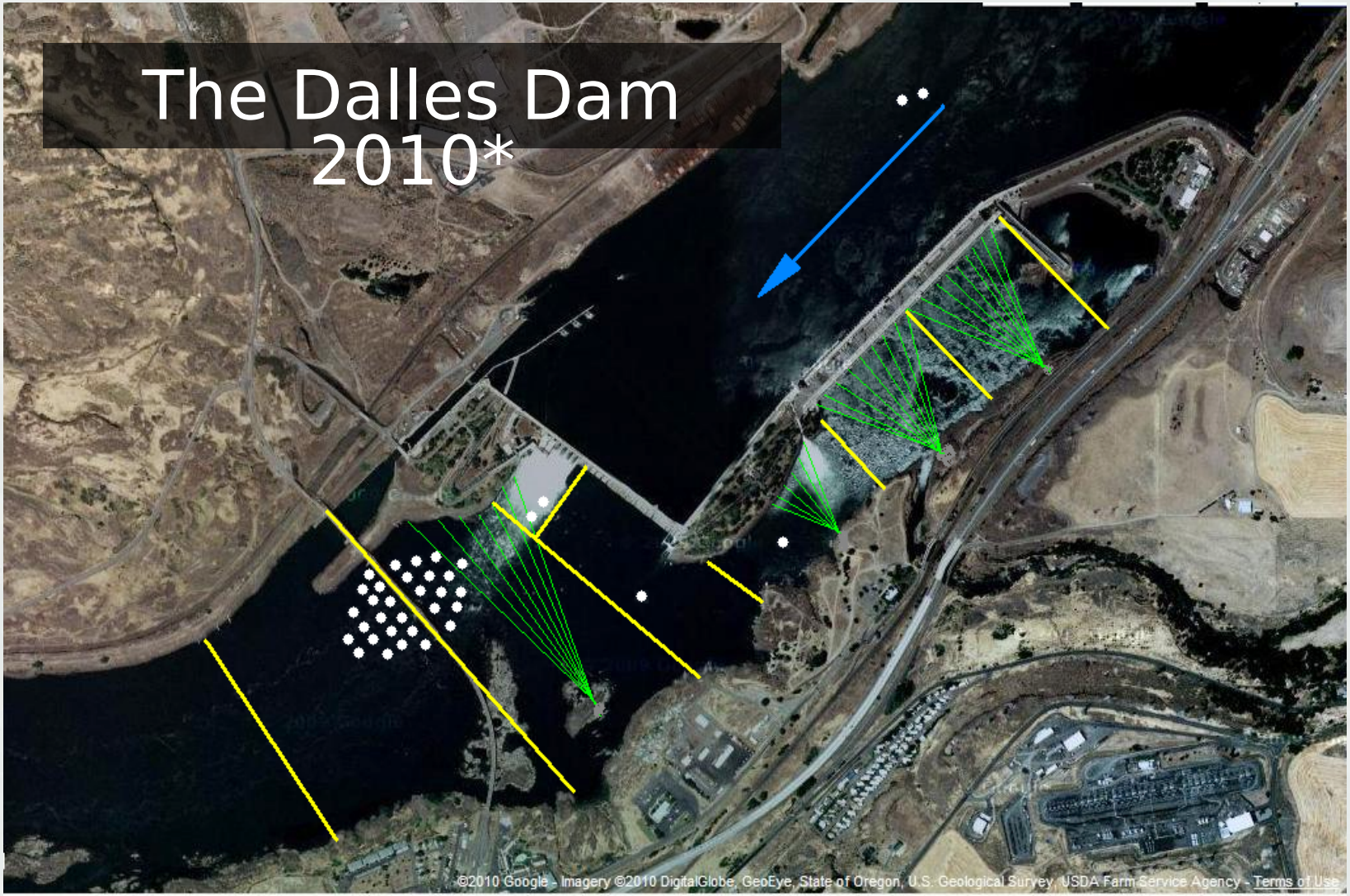
*Daily mean gull count n = 17
One dot = one gull

Avian Consumption Study Data Portal
Home
In-Season
GIS
Message Board
File Manager
Administration
nzorich
Attack Map
Location:
John Day Dam
Species:
Gull
Zone:
All
Attack Type:
Attack Rate
Run
Layers
Resolution
Movie Settings
TIP: Press F11 to toggle full screen mode
SW FB
SW T1
SW T2
SW T3
SW T4
PH FB
PH T1
PH T2
PH T3
PH T4
POWERED BY esri
May, 2011
June, 2011
34
0
Total Attacks
Week 18, May, 2011
Week 19, May, 2011
Week 20, May, 2011
Week 21, May, 2011
Week 22, May, 2011
Week 23, Jun, 2011
Week 24, Jun, 2011

The Dalles Dam 2010*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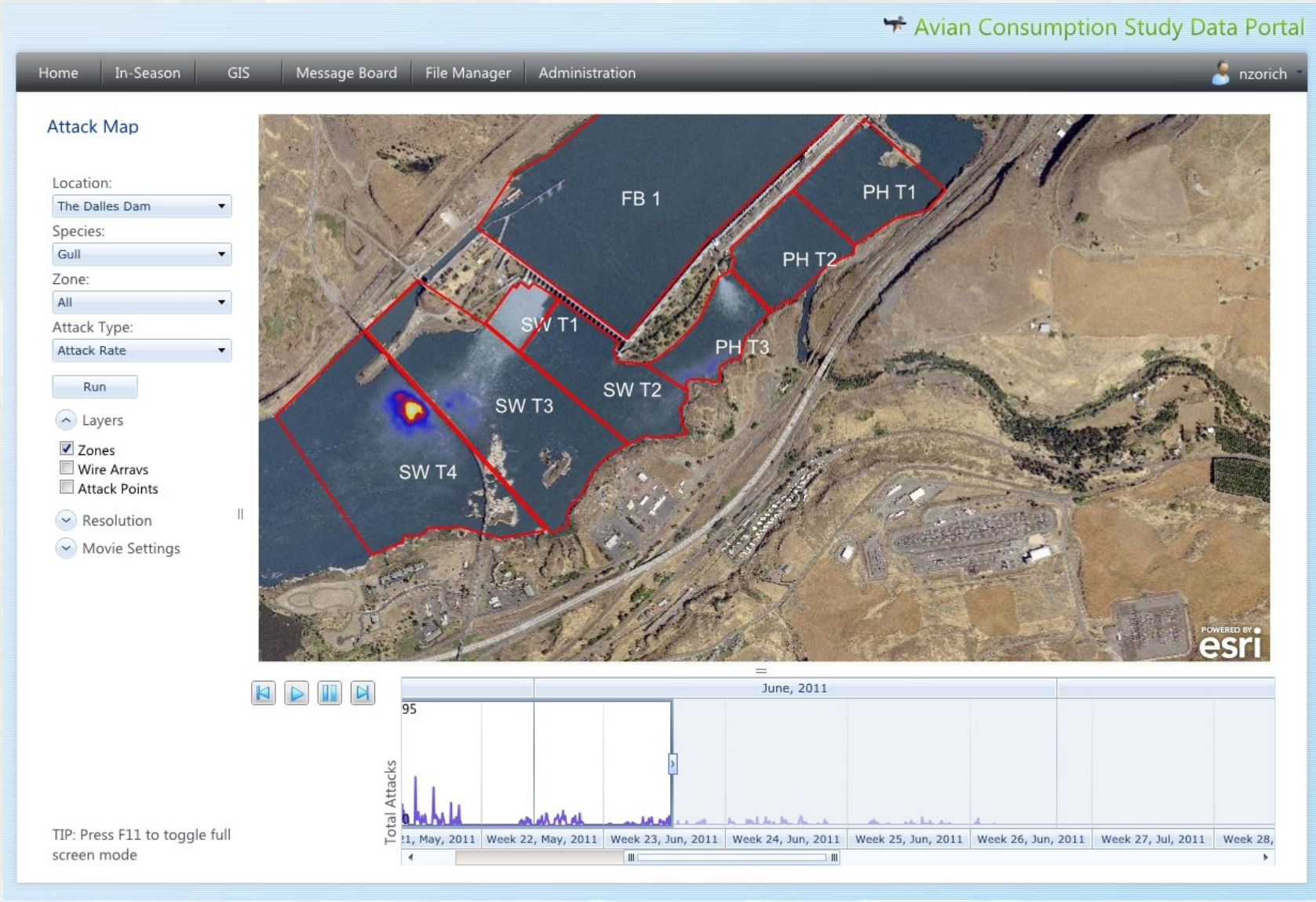
*Daily mean gull count n = 34
One dot = one gull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FB 1
PH T1
PH T2
PH T3
SW T1
SW T2
SW T3
SW T4
POWERED BY esri
June, 2011
95
Total Attacks
Week 22, May, 2011
Week 23, Jun, 2011
Week 24, Jun, 2011
Week 25, Jun, 2011
Week 26, Jun, 2011
Week 27, Jul, 2011
Week 28,
TIP: Press F11 to toggle full screen mode

California gull predation

Project	Smolt Consumption (95% CI)	Fish Consumption (greater)	Year	Author
John Day	50,000 – 110,000		2009	Zorich et al. 2010
John Day	11,000 – 26,000		2010	Zorich et al. in prep
John Day		10,000	To July 11	Present Study
The Dalles	58,000 – 110,000		2010	Zorich et al. in prep
The Dalles		20,000	To July 11	Present Study